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P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/916,268	Applicant(s) MALIK, VISHAL	
	Examiner Benjamin R. Bruckart	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8-13 and 16-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8-13, 16-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Status of Claims:

Claims 2-6, 8-13, 16-27 are pending in this Office Action.

Claims 25-27 are new.

Claims 2-6, 8-13, and 16-24 are amended.

Claims 1, 7, 14-15 are cancelled.

The objection to claim 16 is withdrawn in light of applicant's amendment.

Response to Arguments

Applicant's arguments filed in the amendment filed 10/21/05, have been fully considered but are moot in view of new grounds of rejection.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites intelligent agents for “providing communications between said one or more peer computers and additional processing therebetween.” Additional processing therebetween is vague and indefinite by not explaining what is processed and therebetween what entity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 25, 2-6, 8-13, 16-18, 21-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2002/0120744 by Chellis et al.

Regarding claim 25, a method of dynamically allocating a job request in a network comprising a plurality of peer computers (page 2, para 11), a broker module maintaining a plurality of available peer computers capable of processing the job request (page 4, para 26; page 5, para 48), and a plurality of available sub-broker modules capable of scheduling and monitoring the progress of the job request on one or more of said peer computers (page 5, para 49), the method comprising:

- submitting the job request to the broker module (page 5, para 51; resource allocator);
- selecting an available peer computer qualified to process the job request (page 5, para 51) and one of said sub-broker modules capable of scheduling and monitoring the job request on said available peer computer (page 8, para 63);
- submitting the job request and the selected peer computer to said sub-broker module (page 8, para 63);
- schedule the job request on the selected peer computer and monitoring the progress thereof (page 8, para 63); and
- indicating the availability of the selected peer computer to the broker module upon the completion of the job request (page 8, para 63).

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Regarding claim 2, the method of claim 25, comprising qualifying each of the plurality of peer computers as either available, not available, or incompetent to handle the job request (page 2, para 12 and 15).

Regarding claim 3, the method of claim 25, further comprising using intelligent agents residing on one or more of the peer computers for providing communications between said one or more peer computers and additional processing therebetween (page 2, para 11; page 8, para 65).

Regarding claim 26, the method of claim 3, wherein one of said intelligent agents permits said sub-broker module to determine whether to subdivide the job request into more than one related job requests (page 2, para 11; page 5, para 48).

Regarding claim 4, the method of claim 25, wherein the job request relates to any one of: including regression testing, functional testing, compatibility and standards testing and performance testing (page 8, para 63).

Regarding claim 5, the method of claim 25, further comprising characterizing the job request and forwarding the job request to one of a chosen plurality of sub-broker modules to dynamically reconfigure one of said peer computers to enable said one peer computer to handle the job request (pages 5-6, para 51).

Regarding claim 6, the method of claim 25, wherein the plurality of sub-broker modules includes any one of a patch queue sub-broker module, a pre-release sub-broker module, a command sub-broker module and a libc sub-broker module (page 8, para 63).

Regarding claim 8, the method of claim 25, comprising maintaining any one of a free peer pool list, an in-progress peer pool list and a waiting peer pool list (page 2, para 12, 15).

Regarding claim 9, the method of claim 8, comprising indicating the availability of the peer computers in the free peer pool list (page 2, para 12, 15).

Regarding claim 10, the method of claim 8, comprising removing a peer computer from the free peer pool list and adding the computer to the in-progress peer pool list during execution of the job request (page 2, para 12, 15; allocated).

Regarding claim 12, the method of claim 8, comprising returning a peer computer to the waiting peer pool list and qualifying the peer computer to be placed on the free peer pool list (page 2, para 12, 15).

Regarding claim 11, the method of claim 25, wherein a peer computer is selected and prepared by a global peer processing unit (pages 5-6, para 51).

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Regarding claim 13, the method of claim 25, comprising determining whether the job request can be handled by said one peer computer, and if necessary, assigning two or more peer computers to handle the job request (pages 5-6, para 51).

Regarding claim 27, a system for dynamically allocating a plurality of job requests in a network comprising a plurality of peer computers (page 2, para 11), a plurality of modules executable on one or more of said peer computers to process the job requests (page 4, para 26; page 5, para 48), comprising;

a plurality of sub-broker modules capable of scheduling the job requests on one or more of said peer computers and monitoring the progress thereof (page 5, para 49); and

a broker module for maintaining a list of the peer computers currently available and capable of processing one of said job requests (page 4, para 26; page 5, para 48), said broker module selecting one or more of said available peer computers qualified to process said job request (page 5, para 51), and one or more of said sub-broker modules capable of scheduling said job request on the selected peer computers and monitoring the progress thereof (page 8, para 63),

wherein said one or more sub-broker modules indicate the availability of the selected peer computer to the broker module upon the completion of the job request (page 8, para 63).

Regarding claim 16, the system of claim 27, wherein the sub-broker modules include a patch queue sub-broker, a pre-release sub-broker, a command sub-broker and a libc sub-broker (page 8, para 63).

Regarding claim 17, the system of claim 27, wherein said job request is received by said broker (page 5, para 51; resource allocator).

Regarding claim 18, the system of claim 27, wherein each of said sub-brokers is associated with one of the peer computers among said plurality of peer computers (page 8, para 63).

Regarding claim 21, the system of claim 27, wherein said dynamic allocation includes load balancing (page 8, para 63).

Regarding claim 22, the system of claim 21, wherein load balancing includes forming peer groups (page 5, para 50).

Regarding claim 23, the system of claim 27, wherein each of the sub-brokers is in communication with the other sub-brokers (page 5, para 49).

Regarding claim 24, the system of claim 23, wherein two peer computers share the job request (page 6, para 51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2002/0120744 by Chellis et al in view of U.S. Patent Publication No. 2001/0054095 by Kampe.

Regarding claim 19,

The Chellis reference teaches the system of claim 17.

The Chellis reference does not explicitly state wherein any of said peer computers can become the broker.

The Kampe reference teaches any of said peer computers can become the broker (page 3, para 38).

The Kampe reference further teaches the invention promotes efficiency and high availability of resources (page 1, para 10-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of dynamically allocating resources as taught by Chellis while employing other nodes as the broker as taught by Kampe in order to allow for higher efficiency and higher availability of resources.

Claim 20 is rejected under the same rationale given above. In the rejections set forth, the examiner will address the additional limitations and point to the relevant teachings of Chellis and Kampe.

Regarding claim 20, the system of claim 17, wherein the broker has a master queue processing unit including an incoming request queue, an in-progress request queue and a completed request queue (page 4, para 58).

REMARKS

Applicant has cancelled the independent claims and has added new independent claims in their place as well as modified the language of many of the dependent claims.

PRIOR ART

U.S. Patent No 6,070,197 by Cobb et al teaches modifications to CORBA with sub-brokers to monitor and schedule jobs on available resources.

U.S. Patent Publication 2002/0087612 by Harper et al teaches workload disbatcher with servers and agents running on the servers.

U.S. Patent Publication 2002/0099829 by Richards et al teaches proxy proxy servers for load balancing server load balancers.

U.S. Patent No. 5,774,660 by Brendel et al teaches dynamical resource-based load balanceing of requests with a backup load balancer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-3982. The examiner can normally be reached on 8:00-5:30PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Benjamin R Bruckart

Examiner

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brb


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER